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Patent

In the United States Patent and Trademark Office

Application No. 10/728,210

Confirmation No. 7968

Applicant: David H. Roach *et al*

Filed: December 4, 2003

Group Art Unit: 1752

Examiner: Ashton

Docket No. CL-2248 US NA

Customer No. 23906

October 16, 2006

**Response to Office Action**

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Sir:

In reply to Paper No. \_\_\_\_\_, the May 19, 2006 Office Action concerning this application, Applicant respectfully submits the following pursuant to 37 CFR §1.111(a)(1):

### **Amendments**

Please amend this application with respect to the matters set forth on separate pages below concerning the claims:

In the Claims:

Please (a) rewrite Claims 7, 14~20, 42 and 45~50; (b) cancel Claims 1~6, 8, 13, 41, 43, 44 and 52~66 without prejudice to or disclaimer of the subject matter thereof; and (c) add new Claims 82~109.

The requested amendments to Claims 7, 14~20, 42 and 45~50 are shown below in the attached **Appendix A** (pages 7~22) in a marked-up version of those claims, as required by 37 CFR §1.121(c). Deletions are shown by strike-through, and additions are shown by underlining. Also shown in **Appendix A** are new Claims 82~109, and a complete listing of all claims, both pending and canceled, indicating the status thereof.

### Remarks: General

The claims have been amended by rewriting Claims 7, 18, 20, 42 and 50 to describe therein the features of specific embodiments of this invention of particular interest. In addition, Claims 1~6, 8, 13, 41, 43, 44 and 52~66 have been canceled without prejudice to or disclaimer of the subject matter thereof, and new Claims 82~109 have been added.

No new matter is added by the amendment of Claims 7, 18, 20, 42 and 50 or by the addition of Claims 82~109. Claims 7, 18, 20, 42 and 50 have been amended by incorporating therein the subject matter of other previously filed claims as follows:

| Claim(s) | is/are incorporated into | Claim |
|----------|--------------------------|-------|
| 1, 6     |                          | 7     |
| 1        |                          | 18    |
| 1        |                          | 20    |
| 41       |                          | 42    |
| 41       |                          | 50    |

Each of new Claims 82~109 corresponds essentially to an original claim(s) as follows:

| New | Orig   | New | Orig | New | Orig  |
|-----|--------|-----|------|-----|-------|
| 82  | 6      | 92  | 15   | 102 | 20    |
| 83  | 7      | 93  | 16   | 103 | 21~24 |
| 84  | 13     | 94  | 17   | 104 | 9     |
| 85  | 18, 19 | 95  | 2    | 105 | 10~12 |
| 86  | 20     | 96  | 5    | 106 | 13    |
| 87  | 21~24  | 97  | 8    | 107 | 15    |
| 88  | 2      | 98  | 13   | 108 | 16    |
| 89  | 5      | 99  | 15   | 109 | 17    |
| 90  | 8      | 100 | 16   |     |       |
| 91  | 13     | 101 | 17   |     |       |

The amendments to Claims 14~17, 19 and 45~49 are not related to patentability inasmuch as they are made solely for the purpose of addressing matters of form.

The Examiner has indicated that Claims 6, 7, 18, 20~24, 42, 50, 51, 57, 58, 65 and 66 would be allowable if rewritten in independent form, including all of the limitations of the base claim and any intervening claim. Claims 7, 18, 20, 42 and 50 have been

rewritten in independent form, including all of the limitations of the base claim and any intervening claim. Claim 7 also includes the limitations of Claim 6. Claims 21~24 and 51 remain as dependent claims, and Claims 57, 58, 65 and 66 have been cancelled.

By Applicant's calculation, no fee is due by reason of this amendment to the claims and/or the addition of new Claims 82~109. The cancellation of Claims 1~6, 8, 13, 41, 43, 44 and 52~66 has been taken into account in the fee calculation. If, however, Applicant's calculation is in error, please charge any required fee to Deposit Account No. 04-1928 (E.I. du Pont de Nemours and Company).

A supplemental Information Disclosure Statement ("IDS") pursuant to 37 CFR §1.98 is enclosed, for which the fee stated in §1.17(p) is due by reason of §1.97(c)(2). Please charge this fee to Deposit Account No. 04-1928.

A petition under 37 CFR §1.136 for a two-month extension of time to respond to the Examiner's action is enclosed, the fee for which should be charged to Deposit Account No. 04-1928.

If any fee other than or in addition to those mentioned specifically above is required to authorize or obtain consideration of this response or the IDS, please charge such fee to Deposit Account No. 04-1928.

Claims 7, 14~24, 42, 45~51 and 67~109 are now active in the application. Applicant hereby requests reconsideration and further examination of the application in view of the reasons it has set forth below for allowance of the claims.

**Remarks: Detailed Action**

In Item 4, the Examiner has rejected Claims 1~5, 8, 13~17, 19, 41, 43~49, 52~55, 56 and 59~64 under 35 U.S.C. §103(a) as being unpatentable over US 02/094,382 ("Hattori") in view of "Carbon Nanotubes" (Wikipedia) and "Carbon Nanotubes" (Physicsweb). Claims 1~5, 8, 13, 41, 43, 44, 52~55, 56, 59~64 have been cancelled.

In Item 5, the Examiner has objected to Claims 6, 7, 18, 20~24, 42, 50, 51, 57, 58, 65 and 66 as being dependent on a rejected base claim, and has indicated that those claims would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claim.

In accordance with the Examiner's indication of allowability concerning Claims 7, 18, 20, 42 and 50, those claims have been rewritten in independent form, including the addition of all of the limitations of the base claim and any intervening claim. Claims 57, 58, 65 and 66 have been cancelled.

Claims 4~17, 19 and 45~49 remain as dependent claims. As Claims 4~17 are dependent on Claim 7, Claim 19 is dependent on Claim 18, and Claims 45~49 are dependent on Claim 42, Applicant submits that those claims are patentable for the same reasons pertaining to their respective newly-amended base claims, Claims 7, 18 and 42.

New Claims 82~109 have been submitted that are dependent, variously, on an independent claim within the group of Claims 7, 18, 20, 42 and 50. Applicant submits that new Claims 82~109 are patentable for the same reasons pertaining to amended Claims 7, 18, 20, 42 and 50.

In view of the foregoing, Applicant submits that all of the Examiner's objections and rejections have been properly traversed, and that the pending claims are in condition for allowance, request for which is hereby respectfully made.

Application No. 10/728,210  
Art Unit 1752, Examiner Ashton  
Docket No. CL-2248 US NA  
October 16, 2006  
Page No. 6

Respectfully submitted,

A handwritten signature in black ink, appearing to read "John A. Langworthy", is written over a horizontal line. The signature is stylized with loops and a long horizontal stroke extending to the right.

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10/728,210

CL2248 US NA

Response to Office Action

Supplemental Information Disclosure Statement

Petition for Extension of Time

Page \_\_\_\_ of \_\_\_\_

This collection of information is required by 37 CFR 1.8. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 1.8 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.